

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A magnetic memory cell comprising:

a magnetic element, the magnetic element being written using a first write line and a second write line, the magnetic element residing at an intersection between the first write line and the second write line, the second write line oriented at an angle to the first write line, at least a portion of the second write line being covered by an insulating layer, a magnetic layer covering at least a portion of the insulating layer, the portion of the insulating layer residing between the magnetic layer and the second write line, the magnetic layer including a soft magnetic material;

wherein the first write line is a magnetic write line including a core portion, the core portion including a soft magnetic material.

2. (Currently Amended) A magnetic memory comprising:

a first plurality of write lines, each of the first plurality of write lines being a magnetic write line including a core portion, the core portion including a soft magnetic material;

a second plurality of write lines oriented at an angle to the first plurality of write lines, each of the second plurality of write lines having a top and at least one side;

an insulating layer covering at least a portion of each of the second plurality of write lines; and

a magnetic layer covering a portion of the insulating layer, the portion of the insulating layer residing between the magnetic layer and the second plurality of write lines, the magnetic layer including a soft magnetic material;

a plurality of magnetic memory elements residing at intersections of the first plurality of write lines and the second plurality of write lines.

3. (Currently Amended) The magnetic memory of claim 2 wherein the ~~first plurality of write lines is a plurality of magnetic write lines~~ is composed of the soft magnetic material.

4. (Original) The magnetic memory of claim 2 wherein the first plurality of write lines is electrically connected to the plurality of magnetic memory elements.

5. (Currently Amended) The magnetic memory of claim 2 wherein the first plurality of write lines reside below the plurality of magnetic memory elements, the first plurality of write lines being electrically ~~connected to~~ isolated from the plurality of magnetic memory elements; and

wherein the second plurality of write lines reside above the magnetic memory element, the second plurality of write lines being electrically ~~isolated from~~ connected to the magnetic memory element.

6. (Original) The magnetic memory of claim 2 wherein the insulating layer is formed using a CVD or an ALCVD process.

7. (Currently Amended) ~~The magnetic memory of claim 2~~ A magnetic memory comprising:

a first plurality of write lines;

a second plurality of write lines oriented at an angle to the first plurality of write lines, each of the second plurality of write lines having a top and at least one side;

an insulating layer covering at least a portion of each of the second plurality of write lines; and

a magnetic layer covering a portion of the insulating layer, the portion of the insulating layer residing between the magnetic layer and the second plurality of write lines, the magnetic layer including a soft magnetic material;

a plurality of magnetic memory elements residing at intersections of the first plurality of write lines and the second plurality of write lines;

wherein the second plurality of write lines include aluminum and wherein the insulating layer is oxidized aluminum.

8. (Original) The magnetic memory of claim 2 wherein the insulating layer has a thickness of less than one hundred nanometers.

9. (Original) The magnetic memory of claim 2 wherein each of the second plurality of lines has a first thickness and wherein the soft magnetic layer has a second thickness of less than one half the first thickness.

10. (Currently Amended) A method for providing a magnetic memory comprising the steps of:

providing a first plurality of write lines, each of the first plurality of write lines being a magnetic write line including a core portion, the core portion including a soft magnetic material;

providing a plurality of magnetic memory elements;

providing a second plurality of write lines oriented at an angle to the first plurality of write lines, the plurality of magnetic memory elements residing at intersections of the first plurality of write lines and the second plurality of write lines;

providing an insulating layer, a portion of the insulating layer covering at least a portion of the second plurality of write lines; and

providing a magnetic layer, the portion of the insulating layer residing between the magnetic layer and the second plurality of write lines, the magnetic layer including a soft magnetic material.

11. (Currently Amended) The method of claim 10 wherein the ~~first plurality of write lines is a plurality of magnetic write lines~~ is composed of the soft magnetic material.

12. (Original) The method of claim 10 wherein the first plurality of write lines are electrically connected to the plurality of magnetic memory elements.

13. (Currently Amended) The method of claim 10 wherein the step of providing the first plurality of write lines includes providing the first plurality of write lines below the plurality of magnetic memory elements, the first write line being electrically ~~connected to~~ isolated from the plurality of magnetic memory elements; and

wherein the step of providing the second plurality of write lines includes providing the second plurality of write lines above the plurality of magnetic memory elements, the second write line being electrically ~~isolated from~~ connected to the plurality of magnetic memory elements.

14. (Original) The method of claim 10 wherein the step of forming the insulating layer includes using a CVD or an ALCVD process.

15. (Currently Amended) ~~The method of claim 10~~ A method for providing a magnetic memory comprising the steps of:

providing a first plurality of write lines;

providing a plurality of magnetic memory elements;

providing a second plurality of write lines oriented at an angle to the first plurality of write lines, the plurality of magnetic memory elements residing at intersections of the first plurality of write lines and the second plurality of write lines;

providing an insulating layer, a portion of the insulating layer covering at least a portion of the second plurality of write lines; and

providing a magnetic layer, the portion of the insulating layer residing between the magnetic layer and the second plurality of write lines, the magnetic layer including a soft magnetic material;

wherein the second plurality of write lines include aluminum and wherein the step of providing the insulating layer further includes an aluminum oxidation step.

16. (Original) The method of claim 10 wherein the insulating layer has a thickness of less than one hundred nanometers.

17. (Original) The method of claim 10 wherein each of the second plurality of lines has a first thickness and wherein the step of providing the magnetic layer includes the step of providing a soft magnetic layer having a second thickness of less than one half the first thickness.

Please add claims:

18. (New) The magnetic memory cell of claim 1 wherein the first write line is composed of the soft magnetic material.

19. (New) A magnetic memory cell comprising:

a magnetic element, the magnetic element being written using a first write line and a second write line, the magnetic element residing at an intersection between the first write line and the second write line, the second write line oriented at an angle to the first write line, at least a portion of the second write line being covered by an insulating layer, a magnetic layer covering at least a portion of the insulating layer, the portion of the insulating layer residing between the magnetic layer and the second write line, the magnetic layer including a soft magnetic material;

wherein the second write line includes aluminum and wherein the insulating layer is oxidized aluminum.